

Claims

1. Gelatin compositions consisting of a gelatin of non-bovine and non-pig origin and a setting system.
2. Gelatin compositions according to claim 1, wherein the
5 gelatin is derived from fish, poultry or plants.
3. Gelatin compositions according to claim 1, wherein the gelatin is fish skin gelatin.
4. Gelatin compositions according to claim 1, wherein the the setting system consists of hydrocolloids and cations.
- 10 5. Gelatin compositions according to claim 1, wherein the the setting system contains optionally sequestering agents.
6. Gelatin compositions according to claim 1, wherein the gelatin is contained in an amount of 83 to 93 % by weight by a water content of 7 to 17 % by weight and the
15 hydrocolloids are contained in an amount of 0.01 to 10 %, preferably 0.1 to 3 % by weight and cations in an amount of 0.001 to 3 %, preferably 0.01 to 1 % by weight.
7. Gelatin compositions according to claim 1, wherein the setting system contains optionally sequestering agents in
20 an amount of 0.001 to 3 %, preferably 0.01 to 1 % by weight of the composition.
8. Gelatin compositions according to claim 1, wherein the hydrocolloids of the setting system are selected from polysaccharides.

9. Gelatin compositions according to claim 1, wherein the hydrocolloids of the setting system are selected from alginates, agar gum, guar gum, locust bean gum (carob), carrageenan, tara gum, gum arabic, ghatti gum, Khaya grandifolia gum, tragacanth gum, karaya gum, pectin, arabian (araban), xanthan, gellan, starch, Konjac mannan, galactomannan, or funoran.

10. Gelatin compositions according to claim 1, wherein the hydrocolloids of the setting system are selected from exocellular polysaccharides.

11. Gelatin compositions according to claim 1, wherein the hydrocolloids of the setting system are selected from xanthan, acetan, gellan, welan, rhamsan, furcelleran, succinoglycan, scleroglycan, schizophyllan, tamarind gum, curdlan, pullulan, or dextran.

12. Gelatin compositions according to claim 1, wherein the hydrocolloids of the setting system are selected from gellan gum or kappa-carrageenan.

13. Gelatin compositions according to claim 1, wherein the optional sequestering agent or mixture of sequestering agents of the setting system is selected from ethylenediaminetetraacetic acid, acetic acid, boric acid, citric acid, edetic acid, gluconic acid, lactic acid, phosphoric acid, tartaric acid or salts thereof, methaphosphates, dihydroxyethylglycine, lecithin or beta cyclodextrin.

14. Gelatin compositions according to claim 14, wherein the sequestering agent or mixture of sequestering agents is selected from ethylenediaminetetraacetic acid or salts thereof or citric acid or salts thereof.

15. Gelatin compositions according to claims 1 to 14 containing additionally plasticizers in an range from about 0 to 40 % based upon the weight of the gelatin.

5 16. Gelatin composition according to claim 15 wherein the plasticizer or mixture of plasticizers is selected from polyethylene glycol, glycerol, sorbitol, sucrose, corn syrup, fructose, dioctyl-sodium sulfosuccinate, triethyl citrate, tributyl citrate, 1,2-propylenglycol, mono-, di- or triacetates of glycerol, or natural gums.

10 17. Gelatin compositions according to claims 1 to 16 containing additionally coloring agents in an range from about 0 to 10 % based upon the weight of the cellulose ether.

15 18. Gelatin compositions according to claim 17 wherein the coloring agent or mixture of coloring agents is selected from azo-, quinophthalone-, triphenylmethane-, xanthene- or indigoid dyes, iron oxides or hydroxides, titanium dioxide or natural dyes.

20 19. Gelatin compositions according to claim 17 wherein the coloring agent or mixture of coloring agents is selected from patent blue V, acid brilliant green BS, red 2G, azorubine, ponceau 4R, amaranth, D+C red 33, D+C red 22, D+C red 26, D+C red 28, D+C yellow 10, yellow 2 G, FD+C yellow 5, FD+C yellow 6, FD+C red 3, FD+C red 40, FD+C blue 1, FD+C blue 2, FD+C green 3, or brilliant black BN.

25 20. Gelatin compositions according to claim 17 wherein the coloring agent or mixture of coloring agents is selected from carbon black, iron oxide black, iron oxide red, iron oxide yellow, titanium dioxide, riboflavin, carotenes, anthocyanines, turmeric, cochineal extract, chlorophyllin, 30 canthaxanthin, caramel, or betanin.

21. Containers for unit dosage forms for agrochemicals, seeds, herbs, foodstuffs, dyestuffs, pharmaceuticals, or flavoring agents produced from the gelatin compositions according to claims 1 to 20.

5 22. Container according to claim 21 which is a pharmaceutical capsule.

23. Containers according to claims 21 or 22, characterized in that it has a coating.

24. Coated container according to claim 23 wherein the coating is selected from cellulose acetate phthalate, polyvinyl acetate phthalate, methacrylic acid gelatins, hypromellose phthalate, hydroxypropylmethyl cellulose phthalate hydroxyalkyl methyl cellulose phthalates or mixtures thereof.

15 25. Caplets encapsulated in Gelatin compositions according to claims 1 to 20.

26. Capsules according to claim 21 or 22 characterized in that the capsule halves are sealed with one or more layers of the gelatinic composition according to claims 1 to 20.

20 27. Capsules according to claim 21 or 22 characterized in that the capsule halves are sealed by a liquid fusion process.

28. Capsules according to claim 21 or 22 containing products derived from fish, preferred fish oil.

25 29. Aqueous solutions of gelatin compositions according to claims 1 to 20 for the manufacturing of gelatin capsules.

30. Aqueous solutions according to claim 29, containing gelatin in an amount of 10 to 60 %, preferably 20 to 40 % by weight, hydrocolloids in an amount of 0.01 to 5 %, preferably 0.03 to 1.0 % by weight and cations in an amount of 0.01 to 3 %, preferably 0.1 to 2 % by weight of the aqueous solution.

31. Aqueous solutions according to claim 29 or 30, containing optionally sequestering agents in an amount of 0.01 to 3 %, preferably 0.1 to 2 % by weight of the aqueous solution.

32. Use of aqueous gelatin solutions according to claims 29 to 31 for the manufacturing of hard gelatin capsules in a dip moulding process.

33. Manufacturing of hard gelatin capsules from aqueous gelatin solutions according to claims 29 to 31 in a dip moulding process with conventional hard gelatin capsules process parameters and equipment.